

AMENDMENT TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1.-20. (cancelled)

- 21 (new). A single chain tri-specific antibody comprising in tandem an anti-tumor associated antigen antibody fragment, a first interlinker, an anti-CD3 antibody fragment, a second interlinker and an anti-CD28 antibody fragment.
- 22 (new). The single chain tri-specific antibody of claim 21 further comprising (i) a c-myc tag (SEQ ID NO: 56), (ii) a (His)6 tag (SEQ ID NO: 57), or (iii) a c-myc tag (SEQ ID NO: 56 and a (His)6 tag (SEQ ID NO: 57), in the carboxy terminal region of said single chain tri-specific antibody.
- 23 (new). The single chain tri-specific antibody of claim 21, wherein said first interlinker is a Fc linker comprising an amino acid sequence set forth in SEQ ID NO: 53.
- 24 (new). The single chain tri-specific antibody of claim 21, wherein said second interlinker is a HSA linker comprising an amino acid sequence set forth in SEQ ID NO: 54.
- 25 (new). The single chain tri-specific antibody of claim 21, wherein said anti-tumor associated antigen antibody fragment is an anti-carcinogenic embryonic antigen antibody fragment.
- 26 (new). The single chain tri-specific antibody of claim 21, wherein said anti-tumor associated antigen antibody fragment is a single chain variable fragment (scFv), a Fab fragment, or a variable region of the heavy chain, of an anti-tumor associated antigen antibody.
- 27 (new). The single chain tri-specific antibody of claim 21, wherein said anti-tumor associated antigen antibody fragment comprises the amino acid sequence set forth in SEQ ID NO: 1.
- 28 (new). The single chain tri-specific antibody of claim 21, wherein said anti-tumor associated antigen antibody fragment is a single chain variable fragment (scFv), a Fab fragment, or a variable region of the heavy chain, of an anti-CD3 antibody.
- 29 (new). The single chain tri-specific antibody of claim 21, wherein said anti-CD3 antibody fragment comprises the amino acid sequence set forth in SEQ ID NO: 2.
- 30 (new). The single chain tri-specific antibody of claim 21, wherein said anti-tumor associated antigen antibody fragment is a single chain variable fragment (scFv), a Fab

fragment, or a variable region of the heavy chain, of an anti-CD28 antibody.

- 31 (new). The single chain tri-specific antibody of claim 21, wherein said anti-CD28 antibody fragment comprises the amino acid sequence set forth in SEQ ID NO: 3.
- 32 (new). The single chain tri-specific antibody of claim 21 comprising the amino acid sequence of SEQ ID NO: 4.
- 33 (new). The single chain tri-specific antibody of claim 21, wherein said antibody is purified.
- 34 (new). A DNA sequence encoding the single chain tri-specific antibody of claim 21.
- 35 (new). The DNA sequence of claim 33, comprising the nucleic acid sequence of SEQ ID NO: 3.
- 36 (new). An expression vector comprising the DNA sequence of claim 33.
- 37 (new). The expression vector of claim 35 comprising the DNA sequence of claim 33 and pTRI.
- 38 (new). A host cell comprising the expression vector of claim 35.
- 39 (new). A method for producing a single chain tri-specific antibody comprising culturing the host cell of claim 37 such that the DNA sequence encoding the single chain tri-specific antibody is expressed, and purifying said single chain tri-specific antibody.
- 40 (new). A method for treating or preventing a cancer that expresses carcinogenic embryonic antigen, said method comprising administering a pharmaceutical composition comprising a purified single chain tri-specific antibody of claim 25.